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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,115	10/19/2001	Ying Luo	A-70229/RMS/DHR	2856

20350 7590 05/01/2003

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EXAMINER
GIBBS, TERRA C

ART UNIT	PAPER NUMBER
1635	12

DATE MAILED: 05/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SM.

Office Action Summary	Application No.	Applicant(s)	
	10/029,115	LUO ET AL.	
	Examiner	Art Unit	
	Terra C. Gibbs	1635	

-- The MAILING DATE of this communication appears on the cover sh et with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 1-15 are pending in the instant application.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-3, drawn to a recombinant nucleic acid comprising a nucleic acid sequence selected from SEQ ID NOs: 1, 3, and 5, or complements thereof, classifiable in class 536, subclass 23.1.

II. Claims 4-6, drawn to a recombinant polypeptide comprising an amino acid sequence having at least about 95% identity to an amino acid selected from SEQ ID NOs: 2, 4, and 6, classifiable in class 530, subclass 300.

III. Claims 7 and 9, drawn to a method for screening for a candidate bioactive agent capable of modulating phosphorylation of JNK comprising contacting a bioactive agent to a mammalian cell comprising recombinant MINK3 nucleic acid encoding a MINK3 protein and a JNK protein, classifiable in class 435, subclass 325.

IV. Claims 8 and 10, drawn to a method for screening for a candidate bioactive agent capable of modulating phosphorylation of ERK comprising contacting a bioactive agent to a mammalian cell comprising a recombinant MINK3 nucleic acid encoding a MINK3 protein and an ERK protein, classifiable in class 435, subclass 325.

V. Claims 11, 12, and 15, drawn to a method for screening for a candidate bioactive agent capable of modulating proliferation, growth factor induced-ERK activation and cell survival, comprising contacting a bioactive agent to a mammalian cell comprising a recombinant MINK3 nucleic acid encoding a MINK3 protein wherein said recombinant MINK 3 nucleic acid is selected from SEQ ID NOs: 2, 4, and 6, classifiable in class 435, subclass 325.

VI. Claim 13, drawn to a method for diagnosing a mammalian cell proliferation disorder, comprising sequencing at least a portion of at least one MINK3 gene comprising a nucleic acid sequence selected from SEQ ID NOs: 1, 3, and 5, classifiable in class 435, subclass 5.

VII. Claim 14, drawn to a medicament for the treatment of a mammalian cell proliferation disorder, comprising a MINK3 antisense nucleic acid comprising a nucleic acid sequence complementary to the nucleic acid sequence of nucleotides 2804-3187 of SEQ ID NO: 1, classifiable in class 536, subclass 24.5.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Groups I and II are unrelated, each from the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the inventions of Groups I and II are unrelated because they are different

molecules with different chemical and physical structures so that independent searches of the prior art would be required that would constitute a serious burden on the Examiner. For example, a search of the recombinant nucleic acid comprising a nucleic acid sequence selected from SEQ ID NOs: 1, 3, and 5 of Group I would not encompass all of the art relevant to the recombinant polypeptide comprising an amino acid sequence having at least about 95% identity to an amino acid selected from SEQ ID NOs: 2, 4, and 6 of Group II. They are materially distinct compositions with different chemical and physical structures. The differences between Inventions I and II are further underscored by their different classifications and independent search status. Thus, they are unrelated and patentably distinct from each other.

Although the methods of Groups III and IV are related because they are methods for screening for a candidate bioactive agent capable of modulating phosphorylation, they are patentably distinct from each other. Although there are no provisions under the section for "Relationship of Inventions" in MPEP 806.05 for inventive groups that are directed to related methods, restriction is deemed to be proper because these methods constitute patentably distinct inventions for the following reasons: They employ different molecules with different chemical and physical structures so that independent searches of the prior art would be required that would constitute a serious burden on the Examiner. For example, a search of the candidate bioactive agent capable of modulating phosphorylation JNK of Group III would not encompass all of the art relevant to the candidate bioactive agent capable of modulating phosphorylation ERK of Group IV. They are materially distinct methods which differ in method steps, response variables, and criteria for success. Thus, they are materially distinct methods and are patentably distinct from each other.

Although the methods of Groups III and IV and Group V are related because they employ a method comprising contacting a bioactive agent to a mammalian cell comprising a recombinant MINK3 nucleic acid encoding a MINK3 protein, they are patentably distinct from each other. Although there are no provisions under the section for "Relationship of Inventions" in MPEP 806.05 for inventive groups that are directed to related methods, restriction is deemed to be proper because these methods constitute patentably distinct inventions for the following reasons: They employ different molecules with different chemical and physical structures so that independent searches of the prior art would be required that would constitute a serious burden on the Examiner. For example, a search of the candidate bioactive agent capable of modulating phosphorylation of JNK or ERK of Groups III and IV would not encompass all of the art relevant to the candidate bioactive agent capable of modulating proliferation, growth factor induced-ERK activation and cell survival of Group V. They are materially distinct methods which differ in method steps, reagents and/or dosages and/or schedules used, response variables, and criteria for success. Thus, they are materially distinct methods and are patentably distinct from each other.

Inventions of Groups VI and VII are unrelated, each from the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the inventions of Groups VI and VII are unrelated and distinct because they are different molecules with different chemical and physical structures so that independent searches of the prior art would be required that would constitute a serious burden on the Examiner. For example, a search of the MINK3 gene comprising a nucleic acid sequence

selected from SEQ ID NOs: 1, 3, and 5 of Group VI would not encompass all of the art relevant to the MINK3 antisense nucleic acid comprising a nucleic acid sequence complementary to the nucleic acid sequence of nucleotides 2804-3187 of SEQ ID NO: 1 of Group VII. They are materially distinct compositions with different chemical and physical structures. The differences between Inventions VI and VII are further underscored by their different classifications and independent search status. Thus, they are unrelated and patentably distinct from each other.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terra C. Gibbs whose telephone number is (703) 306-3221. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John L. LeGuyader can be reached on (703) 308-0447. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

tcg
April 21, 2003

Ram R. Shukla

RAM R. SHUKLA, PH.D
PATENT EXAMINER